

Claims

1. Piston pin bearing for pistons of an internal combustion engine, having pin bores (2) in which a piston pin is mounted, whereby the pin bores have a mantle surface (2.1) having a highly oval shape in the pin boss equator - pin boss zenith - pin boss equator region, and a mantle surface (2.2) having a circular-cylindrical shape in the pin boss equator - pin boss nadir - pin boss equator region, whose mantle lines (3, 4) running in the nadir and the zenith are oriented parallel to one another,
characterized in that
the mantle line (3) of the highly oval mantle surface running in the pin boss zenith runs at an incline relative to the pin boss axis (Z) on the piston side, from radially outside to radially inside, at an angle (β), in such a manner that the greatest ovality defined by its oval diameter occurs at the inner ends (7) of the pin bores, in each instance, and does not exceed a predetermined value of the oval diameter.
2. Piston pin bearing according to claim 1, characterized in that the incline of the mantle line (3) determined by the

angle (β) comprises only a partial region (2.3) of the pin bores (2).

3. Piston pin bearing according to claim 1, characterized in that the incline of the mantle line (3) determined by the angle (β) runs in linear manner.
4. Piston pin bearing according to claim 1, characterized in that the incline of the mantle line runs in polygonal manner, with a polygon angle of 2.5 angle minutes, in each instance.
5. Piston pin bearing according to claim 2, characterized in that the partial region (2.4) of the pin bores (2.4) that is not configured in highly oval manner is configured as a circular cylinder.
6. Piston pin bearing according to claim 1, characterized in that the pin bores (2) have molded bore regions.
7. Piston pin bearing according to claim 1, characterized in that the mantle surface having a highly oval shape runs in a region (10) that is delimited by a half-circle having a pin

bore diameter (D) defined between pin boss equator - pin boss nadir - pin boss equator, and a half-circle having the diameter (D), offset in the direction of the pin boss zenith, along the piston axis (Y), by 0.03 percent to 0.5 percent of the defined pin boss diameter (D).

8. Piston pin bearing according to claim 7, characterized in that the offset (Y') amounts to between 0.03 and 0.5 percent, preferably 0.1 and 0.15 percent of the pin diameter.
9. Piston pin bearing according to claim 1, characterized in that oil grooves, pockets, slots, or oil bores for feeding in lubricant oil are disposed in the pin bores (2).